ABSTRACT
          THE FOLLOWING IS THE FULL TEXT OF THIS DOCUMENT
(Except for the Evaluation Summary Table): VERSION: 1980. PRODUCER:
Mentor Software, Inc., Box 8082, St. Paul, Minn. 55113. EVALUATION
COMPLETED: April 1982, by staff and constituents of the Texas Region
X Educational Service Center. COST: $19.95. ABILITY LEVEL: Grades
10-14. SUBJECT: Chemistry: titration. MEDIUM OF TRANSFER: 5-1/4"
flexible disk. REQUIRED HARDWARE: Apple II, single disk drive.
REQUIRED SOFTWARE: DOS 3.3. INSTRUCTIONAL PURPOSE: Standard
instruction, enrichment. INSTRUCTIONAL TECHNIQUES: Drill and
practice. DOCUMENTATION AVAILABLE: Supplementary materials include
suggested grade/ability levels, instructional objectives, program
operating instructions, student instructions and student worksheets.
INSTRUCTIONAL OBJECTIVES: Instructional objectives are stated.
INSTRUCTIONAL PREREQUISITES (Inferred): Users should have had science
instruction at the 9-10 grade level. CONTENT AND STRUCTURE: The
program simulates an acidic or basic titration of a solution of
unknown strength. The necessary equipment is displayed graphically.
After the titration has been completed the user is tutored in
performing the necessary calculations. The results are compared to
the actual normality of the unknown solution. ESTIMATED STUDENT TIME
REQUIRED: Twenty minutes. POTENTIAL USES: This package can be used as
a pre-lab for students to perform before doing an actual titration
experiment in the laboratory. It could also be used by an instructor
for purposes of demonstration. MAJOR STRENGTHS: The computer
responses are "friendly," and the activities involve students in
appropriate ways. MAJOR WEAKNESSES: The terms "acid solution" and
"basic solution" need to be added to the definition sheet. EVALUATION
SUMMARY: Evaluators indicate they would use or recommend use of this
package only if certain changes were made. (See Major Weaknesses.)
(Author)

# Titration

ED232643

IR 020031

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**PRODUCER:** Mentor Software, Inc.
Box 8082
St. Paul, Minn. 55113

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**MAJOR WEAKNESSES:** The terms "acid solution" and "basic solution" need to be added to the definition sheet.

## EVALUATION SUMMARY

| SA | A | D | SD | NA | |
|---|---|---|---|---|---|
| | ● | | | | Content is accurate. |
| | ● | | | | Content has educational value. |
| ● | | | | | Content is free of stereotypes. |
| | ● | | | | Purpose of package is well defined. |
| | ● | | | | Package achieves defined purpose. |
| | ● | | | | Content presentation is clear and logical. |
| ● | | | | | Difficulty level is appropriate to audience. |
| ● | | | | | Graphics/sound/color are used appropriately. |
| | ● | | | | Use of package is motivational. |
| | ● | | | | Student creativity is effectively stimulated. |
| ● | | | | | Feedback is effectively employed. |

| SA | A | D | SD | NA | |
|---|---|---|---|---|---|
| | ● | | | | Learner controls rate and sequence. |
| | ● | | | | Instruction integrates with prior learning. |
| | ● | | | | Learning can be generalized. |
| | ● | | | | User support materials are comprehensive. |
| ● | | | | | User support materials are effective. |
| | ● | | | | Information displays are effective. |
| | ● | | | | Users can operate easily and independently. |
| | ● | | | | Teachers can employ package easily. |
| | ● | | | | Computer capabilities are used appropriately. |
| | | ● | | | Program is reliable in normal use. |

SA - Strongly Agree  A - Agree  D - Disagree  SD - Strongly Disagree  NA - Not Applicable

Evaluators indicate they would use or recommend use of this package only if certain changes were made. (See Major Weaknesses.)